

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (currently amended). In a disc drive having a plurality of recording surfaces on which a plurality of concentric data tracks are respectively defined so that the tracks on the recording surfaces at each given radius make up a cylinder, a corresponding plurality of heads adjacent the respective recording surfaces, a servo circuit which selectively performs seeks to move the heads from an initial track to a destination track, and a control processor which schedules a plurality of pending access commands stored in a command queue, a method for optimizing the transfer of data between the recording surfaces and a host computer, A method comprising steps of:

- (a) determining a radial positional offset between a presently active head data transducer and a different, target head data transducer with respect to the adjacent corresponding data recording surfaces, said offset comprising a distance extending along a radius of said surfaces; and
- (b) using the determined radial positional offset distance to schedule a seek operation wherein the presently active data transducer is moved from an initial position and the target data transducer is moved to a final position.
- (b) identifying an estimated seek distance comprising a radial distance between an initial track over which the presently selected head is disposed and a destination cylinder having a destination track to which the target head is to be moved;

- (c) identifying a corrected seek distance in relation to the positional offset;
- (d) obtaining a corrected seek time from a seek profile table in relation to the corrected seek distance; and
- (e) using the corrected seek time to schedule an access command associated with the destination track.

2. (currently amended). The method of claim 1, in which the determining step (a) further comprises a step of storing the measured radial positional offset values in a head offset table in memory accessible by the a control processor.

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3. (currently amended). The method of claim 1, in which the identifying step (e) using step (b) comprises a step of rounding the corrected seek distance to the nearest whole number of tracks steps of identifying an initial seek distance comprising a radial distance between an initial track over which the presently selected data transducer is disposed and a destination cylinder having a destination track to which the target head is to be moved, and determining a corrected seek distance in relation to the initial seek distance and the radial positional offset.

4. (currently amended). The method of claim 1, further comprising a step of:
(f) (c) executing a seek to place the target head over the destination track data transducer to the final position adjacent a destination track.

5. (currently amended). The method of claim 4, in which the executing step (f) (c) comprises steps of: applying current to an actuator motor to move the presently active data transducer from an initial cylinder to a final cylinder while transducing servo data from the associated recording surface, and performing a head switch operation to switch to the target data transducer, wherein upon such head switch operation the target data transducer is nominally adjacent the destination track in a destination cylinder different from the final cylinder.

(f1) ~~applying current to an actuator motor to move the presently active head to a final cylinder different from the destination cylinder while using the presently active head to transduce servo data from the associated recording surface, wherein a radial distance between the final cylinder and the destination cylinder is nominally equal to the radial positional offset between the presently selected head and the target head; and~~

(f2) ~~performing a head switching operation to switch to the target head so that the target head transduces servo data from the associated recording surface, wherein at the conclusion of the head switching operation the target head is nominally over the destination track.~~

6. (currently amended). The method of claim 4, in which the executing step (f) (c) comprises steps of: performing a head switch operation to switch from the presently active data transducer to the target data transducer, and applying current to an actuator motor to move the target data transducer to the destination track in a destination cylinder while using the target data transducer to transducer servo data from the associated recording surface.

(f1) performing a head switching operation to switch to the target head; and
(f2) applying current to an actuator motor to move the target head to the destination cylinder while using the target head to transduce servo data from the associated recording surface.

Claims 7-11 have been cancelled.

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12. (currently amended). A disc drive data storage device, comprising:
a plurality of heads adjacent a corresponding plurality of recording surfaces on which a plurality of concentric data tracks are respectively defined so that the tracks on the recording surfaces at each given radius make up a cylinder;
and
means for scheduling a plurality of pending access commands from a host computer to access a corresponding plurality of destination tracks on different recording surfaces each having an associated target head different from a presently active head, by determining a corrected seek time for each of the pending access commands which accounts for radial positional offset distance between the presently active head and the associated target head along the respective recording surfaces.

13. (currently amended). The disc drive data storage device of claim 12, wherein the means for scheduling comprises a control processor which schedules the execution of the pending access commands in relation to the corrected seek time for each pending access

command determined in relation to an estimated seek length as a radial distance between an initial cylinder over which the presently active head is located and a destination cylinder having a destination track corresponding to the associated access command, a radial positional offset value between the presently active head and the associated target head, and a table of estimated seek times by seek length.

Claim 14 has been cancelled.

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15. (new). A data storage device comprising a control circuit which schedules a seek operation wherein a presently active data transducer is moved from an initial position adjacent a first media surface and a target data transducer is moved to a final position adjacent a second media surface, said scheduling based on a corrected seek time determined in relation to a radial positional offset distance between the presently active data transducer and the target data transducer as measured along a radius of said first and second media surfaces.

16. (new). The data storage device of claim 15, wherein the control circuit determines the corrected seek time by identifying an initial seek distance along the radius of the first media surface between an initial cylinder comprising the initial position and a destination cylinder comprising the final position, and then determining a corrected seek distance in relation to the initial seek distance and the radial positional offset distance.

17. (new). The data storage device of claim 15, wherein the control circuit further executes the seek operation to place the target data transducer at the final position adjacent a destination track in a destination cylinder.

18. (new). The data storage device of claim 17, wherein the control circuit executes the seek by applying current to an actuator motor to move the presently active data transducer from an initial cylinder to a final cylinder while transducing servo data from the associated recording surface, and performing a head switch operation to switch to the target data transducer, wherein upon such head switch operation the target data transducer is nominally adjacent the destination track.

19. (new). The data storage device of claim 17, wherein the control circuit executes the seek by performing a head switch operation to switch from the presently active data transducer to the target data transducer, and applying current to an actuator motor to move the target data transducer to the destination track while using the target data transducer to transducer servo data from the associated recording surface.

20. (new). A method comprising:

determining a radial offset distance between nominally aligned first and second data transducers adjacent corresponding first and second recording surfaces, said distance extending radially along said surfaces; and
using the determined radial offset distance to schedule a seek operation whereby the actuator is moved from an initial position with the first head adjacent an

initial track on the first recording surface to a final position with the second head adjacent a destination track on the second recording surface.

21. (new). The method of claim 20, wherein the using step comprises determining an estimated seek distance comprising a radial distance between a first cylinder comprising the initial track and a second cylinder comprising the destination track, and then adjusting the estimated seek distance in relation to the radial offset distance to obtain a corrected seek distance representative of the actual distance between the second head and the destination track.

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22. (new). The method of claim 21, wherein the using step further comprises determining a seek time from a seek profile table in relation to the corrected seek distance.

23. (new). The method of claim 21, wherein the using step further comprises rounding the corrected seek distance to a whole number of tracks.

24. (new). The method of claim 20, further comprising executing said seek operation in a queued command environment.